

EXTENSION AND REMODELING OF



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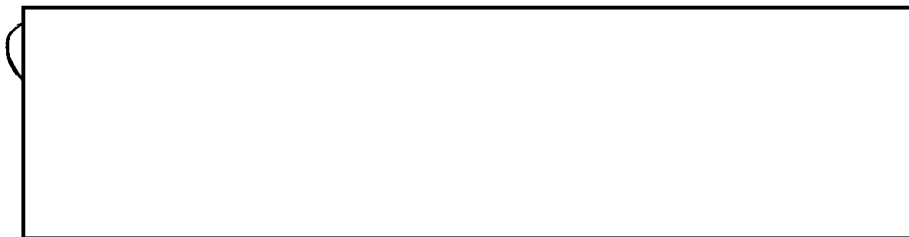


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Prepared by



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## PREFACE

In this, our first presentation to the PIC, we have attempted to provide you with a concept of the P.I.C. facility requirements. We have considered existing numbers of personnel assigned to the various Divisions and Staffs and anticipated additional personnel in sizing many of the areas. In some cases, the anticipated increases in personnel were obtained from the PIC. In others, we made some basic assumptions which may or may not be accurate.

In sizing the various rooms and in locating work areas, we have necessarily analyzed how the PIC functions at the present and how its functioning might be changed as a result of increase personnel and volume of work. Many of the bases for determining relations between one area and another were arrived at by means of discussion with PIC personnel and by extrapolation.

The purpose of this document is to enumerate the assumptions made so that any errors may be corrected in the final arrangement of space within the building. This preliminary basis of design, represents the foundation of this first concept submittal.

The preliminary determination of space relationships and environment has been a joint effort of our Systems Engineers and our Architects and Engineers. The complete Systems analysis has by no means yet been accomplished. Continuing detailed Systems analysis is underway and will undoubtedly modify the arrangements presented this date.

We encourage your comments.

## 1.0 GENERAL

- 1.01 One of the primary considerations was to utilize space within [ ] to provide for present and future growth of the PIC. In order to provide for economical expansion, flexibility has been one of the principle considerations. Partitions, lighting, space allocations, circulation and utilities are arranged on a modular basis wherever possible. STAT
- 1.02 Along with this flexibility, the physical security which includes all logistical security elements dictates many of the relationships of areas, Divisions and Branches, circulation, ingress and egress of personnel, communications, utility installation and maintenance. Document control will be an overriding design consideration.
- 1.03 Optimization of working conditions and atmosphere within confined areas will be necessary to increase production output of personnel. Maximum consideration will be afforded to human factors such as lighting, heating and air conditioning. Foot traffic within each Division will be minimized wherever possible.
- 1.04 Communications will require detailed attention with consideration given to "off the shelf" items, devices and systems which may be used for visual and audio communications as well as transporting hard copy from one point of the building to the other. Both horizontal and vertical circulation within the building will be utilized as shown on the drawings presented.
- 1.05 Provisions will be made for expeditious servicing of all building utilities including plumbing, heating, air conditioning, elevator, telephone switchgear and technical equipment subject to maintenance. Rooms housing this equipment have been located on each floor and may be serviced directly off the main corridor without entrance into any of the vaulted areas. The servicing of large, heavy technical equipment [ ] that is rigidly attached to the floor slab may not fall in this general category. STAT

1.0 GENERAL (Continued)

- 1.06 The relationship of one Branch to another and one Division to another has been determined on the basis of our preliminary evaluation of the traffic flow.
- 1.07 Consideration is given to the designation of conference rooms and vaulted areas within each Division where such is necessary to provide for segregation of personnel and material on a "need to know" basis.
- 1.08 No attempt has been made to subdivide areas specially designed for Outside Associates inasmuch as neither the number of personnel nor square footage required has been verified. It is anticipated however, that the area for the major (largest) existing Associate will be subdivided by the next submittal.

2.0 SECURITY

- 2.01 To provide for maximum control, the number of entrances to the PIC is kept to a minimum consistent with functions and fire safety. Visitors and Center personnel will enter the building at one location. Adjacent to the personnel entry will be the Shipping and Receiving area which will accommodate all incoming and outgoing hard copy, technical and administrative supplies, equipment and couriers.
- 2.02 Separate entrances to the kitchen area will be provided at the north end of [REDACTED] It is assumed that service to this area will not require the supervision of Security Guard since there will be no access from the kitchen to other parts of the building. The kitchen is separated from the cafeteria by means of visual and acoustical barrier.
- 2.03 Other tenants of [REDACTED] will have access to their areas through the present entrance at the south end of the building. Permanent corridor walls without penetrations nor openings of any kind, will extend to the

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2.0 SECURITY (Continued)

2.03 (Continued)

stairs and elevators in that section. It is anticipated that at least one additional legal stair and fire exit will have to be provided for these outside tenants. It is anticipated that an external stair appendage will be most economical to accommodate the USGS on the 6th floor and the other tenants on the 2nd, 3rd and 4th floors. The stair and elevator shafts will be permanently sealed at the first and 5th floors to prevent access to the PIC area.

2.04 It is intended that Shipping and Receiving will be accomplished without visual access from outside the building. Shipping and Receiving area will be controlled by Security Guard and trucks can be unloaded directly into a secured area.

2.05 All openings on the first floor except at cafeteria and entrances enumerated above will be permanently filled with masonry or concrete. A visual barrier will be provided outside the cafeteria windows.

Except at specific locations along the north wall, all windows will be similarly sealed.

2.06 The central corridor is provided on each floor for access to the individual vaulted areas. The corridors will extend between the northern elevator and stair shaft to the one located in the center section. There will be a minimum number of doors leading to the various vaulted areas.

2.07 Equipment rooms are located on each floor so that any required maintenance may be accomplished by direct access from the main corridors and without entering any of the work areas. Space is provided on each floor for technical representatives of equipment manufacturers to provide necessary maintenance on technical equipment that can be moved to this space.

## 2.0 SECURITY (Continued)

- 2.08 A helistop is provided on the roof for access to PIC by VIP's and future deliveries of "urgent" nature, as well as passenger traffic between [ ] and other facilities within the 10 mile radius. It is presumed that the Security Staff located on the floor below the roof will control all visitors arriving by helicopter. Roof access will be secured and controlled by a Guard only when roof landings are scheduled.

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## 3.0 CIRCULATION

- 3.01 There are three existing elevator shafts and stairs in [ ] one in each major section (between existing fire walls). It is intended that the northern most and center section elevator and stairs provide for vertical circulation to all six floors of the PIC. The northern most elevator will extend to the roof to service the helistop.
- 3.02 The existing freight elevator in the northern most section will be removed and replaced with two automatic (push-button) personnel elevators with an approximate speed of 200 feet per minute. The existing freight elevator at the center section will be rehabilitated and will be used primarily for freight, supplies and collateral servicing the 1st through 6th floors.
- 3.03 Corridors will be a minimum of 7'-9" wide to allow for the transporting of equipment to and from the various work areas.

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## 4.0 LOUNGE AND TOILET FACILITIES

- 4.01 At each floor except the first, lounge facilities are provided adjacent to the mens' and womens' toilet core in the north section. On the first floor, the cafeteria space may serve as a lounge area and on the 5th floor the lounge is combined with a Library. It is anticipated that the Library will be controlled by the Information Branch of DMD and will provide current periodicals and books to the PI.

4.0 LOUNGE AND TOILET FACILITIES (Continued)

- 4.02 Additional toilet facilities will be provided on each floor in the center or southern section for convenience. Access to these toilet facilities will be from the main corridors.
- 4.03 Special toilet facilities will also be provided at the Maintenance and Operations area, Dispensary and Office of the Director.
- 4.04 Toilet facilities provided will accommodate in excess of  people.

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5.0 BRIEFING ROOMS AND CONFERENCE ROOMS

- 5.01 It is recognized that each Division has specific requirements and demand for conference rooms. Conference rooms are provided for each Division and in general are sized to accommodate  people. The conference room for the Director will accommodate up to  people.
- 5.02 There are two briefing rooms provided. The first floor briefing room will accommodate 56 people and the 6th floor or VIP briefing room will accommodate up to  people.
- 5.03 Conference rooms (minimum "security") and vendor rooms are provided on the first floor adjacent to the lobby. The conference rooms at this location are sized to accommodate  people. The vendor space is sized to accommodate vendor's equipment displays.
- 5.04 It is anticipated that additional conference rooms will be provided in the other Outside Associated groups or services in their respective areas. It is further anticipated that no briefing rooms will be provided specifically for these Services. Briefings conducted by them can be accommodated in the large first or 6th floor briefing rooms.

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## 6.0 CAFETERIA

- 6.01 It is anticipated that hot foods will be provided by a catering service and furnished to the kitchen area by means of portable steam tables. It is not anticipated that any cooking will be done on the premises.
- 6.02 The catering service personnel will work in the kitchen area and have no access to the cafeteria or other parts of the building. Food can be dispensed through small openings to the serving line. The serving line will be closed off from the dining room by a screen to provide for visual and audio security. The cafeteria itself however, is considered to be an "unsecured" area.
- 6.03 Vending machines for coffee, drinks, wrapped sandwiches, fruit, candy and cigarettes are located just inside the cafeteria door. These machines are loaded from the kitchen area by uncleared personnel.
- 6.04 The dining room is currently sized to accommodate approximately

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## 7.0 ELECTRICAL CONSIDERATIONS

- 7.01 It is proposed that all communications conduit be surface mounted so that daily visual inspection may be accomplished. Circuiting design will be accomplished to permit rearrangement of space with a minimum of changes in the electrical system.
- 7.02 It is anticipated that commercial power will be furnished to the building by the PEPCO. Because of a remote possibility that service might be interrupted, it is anticipated that alternate power supply be made available to  Consideration has been given to use of diesel engine generators and investigations are underway to determine economies of providing power from another source.

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## 7.0 ELECTRICAL CONSIDERATIONS (Continued)

- 7.03 The determination of the equipment that will require uninterrupted power will have to be made by PIC. The use of diesel engine generators which will start automatically in the event of normal power failure, will cause an interruption in power supply of about 8 to 10 seconds. If this interruption will cause no functional power damage to operating equipment, it will not be necessary for the diesels to idle while commercial power is being used. For critical operations where a power interruption cannot be accommodated, the diesels may be started and run in parallel with commercial power for automatic switch-over should commercial power be interrupted. It should be noted that the cost of diesel engine generators will approximate [ ] per kilowatt and on the basis of 30% of the total extended power demand, an expenditure of ± [ ] should be anticipated. The PIC should evaluate the probability of a commercial power failure justifying this large expenditure for backup. STAT
- 7.04 No electrical service is included in this work for the outside tenants that will occupy [ ] STAT

## 8.0 MECHANICAL CONSIDERATIONS

- 8.01 The entire space to be occupied by PIC will be air conditioned to 75° DB, 50% RH Summer and 70°F Winter. Multi-zone air conditioning units are located in mechanical equipment rooms on each floor. Special air conditioning humidity and dust control will be required in specific areas.
- 8.02 The heating and cooling mediums will be hot water and chilled water circulating through coils in multi-zone air conditioning units. The refrigeration system located in the main equipment room consists of one turbine driven refrigeration machine and two absorption machines. High pressure steam for the central Base power plant will be used to drive the refrigeration equipment. The [ ] has indicated that the steam plant can provide steam on a year-round basis. The STAT

8.0 MECHANICAL CONSIDERATIONS (Continued)

8.02 (Continued)

☐ would not however, guarantee that they would provide<sup>STAT</sup> steam for the remaining life of the building. To accommodate security requirements, the Selectographic Supervisory Data Center Control System will be used. The entire air conditioning system can be controlled by one man at a control center located in the main mechanical equipment room on the first floor. This control system permits the operator to start and stop equipment, check and adjust temperature, open and close dampers and perform other functions necessary without entering the vaulted or secured areas.

8.03 Because of the window access along the north wall of the building, a sprinkler system will not be required. These windows will permit firemen to enter the building in the event of fire.

8.04 Portable CO<sub>2</sub> fire extinguisher units and hose racks will be provided where required.